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Worldwide Report

ENVIRONMENTAL QUALITY

No. 321



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8 September 1981

WORLDWIDE REPORT
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EEC DECISION ON POLLUTION OF MEDITERRANEAN

Rome RASSEGNA PETROLIFERA in Italian 3 Jul 81 pp 559-561

[Text] We are herewith reporting the 19 May 1981 decision of the Council regarding the conclusion of the protocol pertaining to collaboration in the fight against the pollution of the Mediterranean Sea caused by hydrocarbons and other harmful substances in case of critical situations.

The Council of European Communities

Whereas the treaty establishing the EEC, in particular, Article 235,

Whereas the proposal of the Commission,

Whereas the advice of the European Parliament,

Whereas, during the 7 and 8 April 1978 session in Copenhagen, the European Council held that the Community should engage in preventive action and in the fight against marine pollution, in particular the pollution due to hydrocarbons, an important objective of its action, and whereas it invited the Council, on proposal of the Commission, and the member states without further delay, with the Community, to take appropriate measures and, in the competent international agencies, to assume a common attitude regarding in particular the research on and implementation of effective measures to fight against pollution;

Whereas the action programs of the European Community in environmental matters, designed to underline the importance, to the Community, of the fight against marine pollution in general, among other things calling for actions by the Community to fight against pollution due to transportation and navigation, noting that the protection of marine waters for the purpose of assuring the maintenance of vital ecological balances constitutes a priority task;

Whereas the 16 February 1976 Barcelona Convention for the protection of the Mediterranean Sea from pollution, in particular called for the adoption of appropriate measures to guarantee cooperation in the fight against pollution in that sea stemming from hydrocarbons and other harmful substances in case of critical situations;

Whereas Article 24 of the Barcelona Convention provides that the latter and the protocols pertaining to it may be signed by the EEC which has already concluded the Convention and the protocol on the prevention of pollution of the Mediterranean Sea due to the discharge of waste from naval vessels and aircraft;

Whereas the protocol relative to collaboration in the matter of the fight against pollution in the Mediterranean Sea, caused by hydrocarbons and other harmful substances in case of critical situations, calls for collaboration of the parties in the drafting of emergency plans, in the promotion of measures for the fight against marine pollution due to hydrocarbons, the dissemination of information concerning the organization of means and new methods of prevention and fight against pollution, as well as the development of research programs in this field;

Whereas the adoption of the Community of the protocol in accordance with Article 26 of the Barcelona Convention makes it necessary, in order to achieve, within the operation of the Common Market, one of the purposes of the Community in the field of environmental protection and the quality of life and whereas the action authority for this purpose has not been provided for in the treaty;

Whereas it is necessary for the Community to adhere to said protocol for the purpose of taking part in the exchange of information and joint research and thus to pursue the above-mentioned objective, side by side with the member states and without regard as to the role which they have played so far within the context of the Barcelona Convention, and further, that this does not in any way prejudice the future actions of the Community;

Whereas said protocol provides for an exchange of information, a common research effort, and cooperation on the sea, activities which by virtue of their nature do not constitute common rules capable of being influenced by the accords which the member states might wish to conclude in this sector;

Resolved:

Article 1. In the name of the EEC, there is hereby approved the protocol relative to collaboration in the matter of the fight against pollution of the Mediterranean Sea, caused by hydrocarbons and other harmful substances in case of critical situations.

Article 2. The Chairman of the Council shall file the membership instrument provided for by Article 26 of the Barcelona Convention.

The text of the protocol is attached to this decision.

Protocol relative to collaboration in the matter of the fight against pollution in the Mediterranean Sea caused by hydrocarbons and other harmful substances in case of critical situations.

The contracting parties to this protocol,

Inasmuch as they are contracting parties to the Convention for the Protection of the Mediterranean Sea against Pollution,

Recognizing that serious pollution of the waters of the zone of the Mediterranean Sea, caused by hydrocarbons and other harmful substances, can constitute a threat to the riverine states and to the marine ecosystems;

Whereas the fight against this type of pollution calls for the cooperation of all riparian states along the Mediterranean Sea;

Keeping in mind the 1973 International Convention for the Prevention of Pollution Caused by Ships, the 1969 International Convention on Action on the High Seas, in case of a disaster which might cause or could cause pollution due to hydrocarbons, as well as the 1973 Protocol Regarding Action on the High Seas in case of pollution due to substances different from hydrocarbons,

Furthermore keeping in mind the 1969 International Convention on Civil Liability for Damage Caused by Pollution from Hydrocarbons,

Hereby has agreed upon the following:

Article 1. The contracting parties to this protocol (hereafter called "the parties") cooperate to take the steps necessary in case the presence of noteworthy quantities of hydrocarbons or other harmful substances, coming from disasters or resulting from a cumulative effect, which pollute or involve the risk of polluting the waters of the zone defined in Article 1 of the Convention for Protection of the Mediterranean Sea from pollution (hereafter called "the Convention") constitutes a serious and imminent threat to the marine environment, the coastline, or the related interests of one or more parties.

Article 2. For the purpose of this protocol, the expression "connected interests" [related interests] shall mean the interests of a riparian state directly hit or threatened, referring among other things to the following:

- (a) Coastal, port, or estuary maritime activities, including fishing activities;
- (b) Historical or tourist attractions, including water sports and other recreation activities of the region in question;
- (c) The health of the population living in coastal areas;
- (d) The conservation of biological resources.

Article 3. The parties pledge to maintain and promote, individually or in bilateral or multilateral cooperation, the emergency plans and the resources for fighting against marine pollution caused by hydrocarbons and other harmful substances. These means include in particular the equipment, ships, aircraft, and personnel necessary for operations in case of critical situations.

Article 4. The parties, individually or in bilateral or multilateral cooperation, shall arrange and activate effective surveillance of the zone of the Mediterranean Sea for the purpose of obtaining as precise knowledge as possible on the facts spelled out in Article 1 of this protocol.

Article 5. When harmful substances are dumped or have fallen into the sea in packages, containers, mobile tanks, tank trucks, or tank cars, the parties pledge to cooperate to the extent possible in their salvage and their recovery, so as to reduce the risks of marine environmental pollution.

Article 6. 1. Each party pledges to transmit to the other parties information concerning the following:

- (a) The national organization or the national authorities competent in conducting the fight against marine pollution caused by hydrocarbons and other harmful substances;
- (b) The competent national authority charged with receiving information concerning marine pollution caused by hydrocarbons and other harmful substances and concerning themselves with assistance between the parties;
- (c) New methods of preventing marine pollution caused by hydrocarbons and other harmful substances, new procedures for fighting pollution, the development of research programs in this field.

2. The parties, who might possibly have agreed to exchange such information directly, however must communicate that information to the regional center. The latter shall take steps to communicate the information to the other parties and, assuming reciprocity, to the riparian states of the zone of the Mediterranean Sea which are not contracting parties to this protocol.

Article 7. The parties pledge to coordinate the utilization of communications media which they have in order, with the necessary reliability and speed, to guarantee the reception, transmission, and dissemination of every urgent report or information item on the facts and situations spelled out in Article 1. The regional center shall be equipped with the communications media necessary for participating in this coordinated effort and in particular to perform the functions assigned to it under the provisions of Paragraph 2, Article 10.

Article 8. 1. Each party shall see to it that instructions are issued to the captains of ships sailing under its flag and to the pilots of aircraft registered in its territory so that they would report to one of the parties or to the regional center, using the fastest and most appropriate means of communication, considering the circumstances, in conformity with Enclosure I of this protocol;

(a) Any disaster which has been or may be the cause of pollution of marine waters due to hydrocarbons and other harmful substances;

(b) The presence, the characteristics, and the extension of the slick of hydrocarbons or harmful substances spotted in the sea, constituting a serious and imminent threat to the marine environment, the coastline, or the connected [related] interests of one or more parties.

2. The information gathered in accordance with Paragraph 1 must be communicated to the other parties who might be struck by pollution:

(a) By the party that has received the information, directly or preferably through the center or

(b) By the regional center.

In case of direct communication between the parties, the regional center shall be informed as to the steps taken by those same parties.

3. The application of the provisions of Paragraph 2 shall exempt the parties from the obligation mentioned in Article 9, Paragraph 2, of the Convention.

Article 9. 1. Each party that finds itself facing a situation of the kind defined in Article 1 of this protocol must:

(a) Proceed to the necessary evaluations of the nature and scope of the disaster or the situation that calls for emergency measures or, as the case may be, the type and the approximate quantity of hydrocarbons or other harmful substances, as well as the direction and speed of drift of the slicks;

(b) Take steps designed to eliminate or reduce the effects of pollution;

(c) Immediately, directly or through the regional center, inform the other parties as to such evaluation and any action undertaken or planned in the fight against pollution;

(d) Continue to observe the situation as long as possible and continue to report in accordance with the provisions of Article 8.

2. In case of action designed to fight pollution deriving from a vessel, it is necessary to take all possible measures to rescue the persons present on board and, to the extent possible, the salvation of the vessel itself. Each party that undertakes an action of this kind must inform the Intergovernmental Maritime Consultative Organization.

Article 10. 1. Each party that needs assistance for an operation in the fight against hydrocarbons or other harmful substances which pollute or threaten to pollute its coastline may directly or through the regional center mentioned in Article 6, above, request aid from the other parties and first of all from those parties who in turn might be struck by pollution. This aid can in particular include consultant services by experts and the supply or the making available of products, equipment, and nautical means. The parties called upon for aid will do everything possible to provide such aid.

2. Whenever the parties involved in the operation fail to agree on the methods in this fight, the regional center may, with their agreement coordinate the activities of the resources committed by them.

Article 11. The application of the provisions of Articles 6, 7, 8, 9, and 10 of this protocol, concerning the regional center, shall be extended, where advisable, to the subregional centers which may possibly be created, considering the objectives and the functions of same, as well as their relations with the regional center.

Article 12. The regular meetings of the parties to this protocol shall be held during the regular meetings of the contracting parties to the Convention, to be organized in accordance with Article 14 of that Convention. The parties to this protocol can also hold special meetings in accordance with Article 14 of the Convention.

2. The meetings of the parties to this protocol in particular have the purpose of:

(a) Supervising the application of this protocol and evaluating the effectiveness of the measures adopted and the advisability of taking further steps, in particular in the form of enclosures;

(b) Revising and amending, if necessary, any enclosure to this protocol;

(c) As needed, performing any other function by way of application of this protocol.

Article 13. 1. The provisions of the convention to any protocol apply to this protocol.

2. The internal regulations and the financial standards adopted in according with Article 18 of the Convention shall apply to this protocol except if the parties should agree otherwise.

Enclosure

Content of report to be prepared by way of implementation of Article 8 of this protocol.

1. Every report if possible shall generally contain the following:

(a) The identification of the pollution source (possibly the identity of the ship);

(b) The geographic location, the exact time, and date of the event or the observation;

(c) The state of the wind and the sea in the zone;

(d) Useful details on the condition of the vessel when the pollution comes from it.

2. Every report shall if possible in particular contain the following:

(a) Detailed information on the nature of harmful substances involved, including their precise technical name (the commercial name must not be used in place of the precise technical name);

(b) The exact or approximate quantity, the concentration, and the probable state of the harmful substances discharged or which might be discharged into the sea;

(c) The description of the packaging and the identifying markings, as the case may be;

(d) The name of the shipper, the addressee, or the manufacturer.

3. Each report shall clearly spell out, to the extent possible, whether the harmful substance dumped or which might be dumped is a hydrocarbon or a harmful substance in the liquid, solid, or gaseous state, and whether that substance was or is transported in bulk or in packages, in containers, in mobile tanks, in tank trucks, or in tank cars.

4. Each report must be completed, as the case may be, by the addition of any other information that might be useful and that might be requested by the addressees of the report or that might be considered appropriate by the party making out the report.

5. Every person mentioned in Article 8, Paragraph 1, of this protocol must:

(a) As soon as possible complete, as the case may be, the initial report with the information on the development of the situation;

(b) As soon as possible meet the requests for additional information from the countries stricken.

5058

CSO:5000/2157

NATIONAL TOXIC WASTE DISPOSAL PLAN UNDER STUDY

Perth THE WEST AUSTRALIAN in English 13 Jul 81 p 45

[Text] Australian environmental authorities are likely to require the supervised burning of thousands of litres of deadly industrial waste.

Pockets of polychlorinated biphenyls (PCBs) are stored around the country, awaiting a safe burning process after decades of use in industry.

The highly toxic oils are severe environmental and health hazards. Most reports on their destruction call for burning at more than 1300C.

The only destruction of PCBs in Australia is taking place in a small-scale operation in Perth in a specially built furnace supervised by the Public Health Department.

Canberra informants said last week that PCBs were likely to be included in a national disposal plan being drawn up for the disposal of hazardous wastes.

A consultant's report on the plan was being

studied by the Australian Environmental Council, a forum of the Federal and State Environmental Ministers and representatives of New Zealand and Papua New Guinea.

Work was being done internationally on the chemical destruction of PCBs, but Australian authorities had no doubts about the effectiveness of incineration.

TESTS HELD

The informants said that tests had been conducted. The burns had given a 99.9 per cent or better destruction rate.

There had been plans in 1979 to bring to Australia the ship Vulcanus, which sailed from port to port collecting PCBs and other wastes and burning them while on the high seas.

But the ship had been committed elsewhere at the time and was recent-

ly sold by its Dutch owners to U.S. interests. There was no immediate likelihood of the ship or a replacement coming to Australia.

The informants said it was estimated that there were several hundred tonnes of PCBs awaiting destruction in Australia.

[In WA the State Energy Commission is storing about 3600 litres of the waste.]

The Canberra informants said that in an attempt to head off similar problems in future with the substances being used to replace PCBs, a study was being made to check their potential environmental and health effects.

Imports of PCBs to Australia were reduced to zero last year, they said, and the range of uses for the chemicals had been reduced.

CSO: 5000/7582

AUSTRALIA

FARMERS, LIVESTOCKMEN RAP NSW FOR LAND 'GIVEAWAY'

Sydney THE SYDNEY MORNING HERALD in English 18 Jul 81 p 4

[Article by Peter Diegutis]

[Text] The Government of NSW has caved in to trendy city environmentalists by taking productive agricultural land for State national parks, according to the NSW Livestock and Grain Producers' Association.

More than 400 farmer delegates at the LGPA's annual conference in Sydney this week voted unanimously to condemn the Government's plans to convert freehold land to leasehold tenure and to expropriate coal and mineral rights.

They also demanded that there be no changes to current zoning regulations in rural areas under the Environmental Planning and Assessment Act.

Mr Wade Cox, of Khan Yunis, a 1,750 hectare property near Braidwood, said yesterday that the Government's plans threatened the freehold rights of thousands of NSW farmers.

He resigned from the Australian Labor Party on July 7 because, he said, of the principles involved. He believes the Government's action in taking control of rural land is a bigger issue than nationalisation of the banks in 1949.

The conversion of freehold land to leasehold was being made now by a number of means, in line with the ALP's rural land policy, said Mr Cox.

Promulgation of national parks was being developed as an emotional, vote-catching issue for the urban population by urban political groups—but city people were being deliberately misled.

Mr Cox, a former Army officer, said he was not an anti-conservationist and he believed there was a genuine need to declare national parks. However, the matter had got out of hand.

Mr Cox said the Government was using the ill-informed urban conservation lobby as a tool to implement its land tenure policy.

Eventually this would destroy the viability of agricultural production in NSW and ruin country ALP branches for a long time, he said.

Widespread leasehold tenure would remove the incentive for farmers to reinvest in their properties, and the potential for graft would be incredible, Mr Cox claimed.

Because of the widespread anger against it in rural areas, the policy would rebound against the government at the September elections, Mr Cox said.

The security of government-held marginal rural seats including Albury, Castle-reagh, Clarence and Northern Tablelands could be threatened.

CSO: 5000/7582

BRIEFS

COASTAL BULLDOZING--Bulldozers will clear a large slice of scenic coastal heath land near Anglesea for grazing in six months, unless conservationists can raise about \$100,000 to acquire the land. The Barrabool Shire Council voted on Wednesday to permit the land to be cleared for grazing, despite more than 50 objections from individuals, conservationists and Government departments. The decision allows a six-months reprieve before the permit comes into effect, so conservationists have the opportunity to intervene. The director of the Australian Conservation Foundation, Dr Mosley, said last night he was confident the necessary funds could be raised. Dr Mosley said the land, between Urquhart's Bluff and Aireys Inlet, was one of the finest pieces of coastal scenery in Victoria. It should be transferred to public ownership to protect it, he said. The secretary of the Anglesea and Aireys Inlet Society for Conservation of Flora and Fauna, Miss Mary White, said she was horrified at the council's decision. The 40-hectare lot was largely coastal heath, which was rare in Victoria and an important coastal habitat. She said the society would lodge its objection to the permit. A spokesman for the Minister for Conservation, Mr Houghton, said the grazing permit was acceptable to the Minister provided it conformed to guidelines by the Soil Conservation Authority. [Text] [Melbourne THE AGE in English 17 Jul 81 p 15]

MORETON MINING CLASH--The Brisbane City Council is gearing for a head-on clash with the State Government over the Moreton Island sand mining issue. This week the council will launch a publicity campaign calling on Brisbane people to oppose mining on Moreton. The council will plead that Moreton Island should stay in its natural state and will claim that only a unified protest from Brisbane citizens will save it from mining. The council's action comes only days after the issue of a glossy policy statement on Moreton Island by the State Government which promoted limited sand mining on the island. The Brisbane City Council's Labor administration, which has responsibility for Moreton Island, is opposed to any mining on the island. Already it has circulated antimining petitions around its libraries and ward offices. It has made petitions available for signature in its Ann Street Brisbane Administration Centre headquarters. A detailed investigation of Moreton resulted in the adoption of a management plan by the Brisbane City Council. Its main aims are to conserve in its natural state, the quality of its scenery and natural environment, and to enhance public enjoyment of it for recreation purposes. A council spokesman said Moreton Island represented the last significant wilderness area close to Brisbane--there was an acute deficiency of national parks within a 150-km radius of Brisbane. [By John Gardiner] [Excerpts] [Brisbane THE COURIER-MAIL in English 17 Jul 81 p 15]

BRIEFS

CHITTAGONG COASTAL EROSION--Chittagong, July 14--Erosion along the coastal belt of Chittagong is continuing unabated. About 1300 acres of land have been eroded by sea wave and current along the coast of Kutubdia island Sandwip island Anowara thana port thana Doublemooring thana and Sitakund thana during the last two years. Erosion has further been intensified during the current rainy season. According to the engineers of the Coastal Embankment Project Sandwip is the worst erosion affected island of the district. About eight hundred acres of land, the northwest coast of the island, have been engulfed by sea water in the course of the last two years. About two hundred acres of land have also been eroded along the west coast of Kutubdia island during the same period affecting about 30[?] thousand people. About one hundred acres of land along the west coast of Anowara thana have also been engulfed by the water of the Bay of Bengal and the market dovashi has completely gone under water. [Text] [Dacca THE BANGLADESH OBSERVER in English 16 Jul 81 p 7]

5000/7059

POLLUTANTS DAMAGE MANGO PLANTS

Colombo THE CEYLON DAILY NEWS in English 5 Aug 81 p 8

[Text]

NEW DELHI: Industrial air pollutants affect plants, particularly mango trees, considerably.

According to a University Grants Commission sponsored study conducted in Bombay for three years, the damage ranges from 20 to 30 per cent, during early post-monsoon period to about 100 per cent behind a chemical factory situated in front of a hill range during summer.

The study, conducted by Dr. S. B. Chaphekar, Associate Professor of Ecology, Department of Botany, Institute of Science, Bombay, and two others, revealed that mango trees were consistently affected by the quality of air irrespective of the type of pollutants, i.e., auto-exhausts of road-sides or effluents from chemical factories or petroleum refineries.

According to the study, industries in greater Bombay region throw about 1,000 ton-

nes of pollutants per day into the atmosphere. Of these, 38.4 per cent is carbon monoxide, 34.4 per cent sulphur dioxide, and the rest is made up of particulates, oxides of nitrogen and others.

On human beings, "the air pollutants" cause mainly respiratory irritation and in extreme cases serious lung congestion leading to death. Hydrogen

fluoride causes respiratory diseases, fluorosis, teeth mottling and irritation. "Reduced visibility is also associated with air pollution".

Dr. Chaphekar and his associate investigators, Dr. D. B. Boralkar and Mr. R. P. Shetye, also conducted their research on other plants including thespesia (Bhendil), erythrina (Pangara) and polyalthia (asupala).

The maximum damage estimated on leaves of thespesia in and around Bombay was 20 per cent. Compared to mango this plant appeared to be more resistant, with less than five per cent damage at most of the spots.

At one spot near a refinery, the damage though small was present throughout the year.

Amongst the plant species used for estimating the damage to foliage, only mango was consistently reliable, the study says. It showed high foliar damage in industrially polluted areas as well as along road-sides.

Hence it is concluded that only mango trees can prove a reliable and consistent air pollution monitoring instrument. (PTI).

DESTRUCTION OF FORESTS CONTINUES: COUNTERMEASURES SUGGESTED

Vientiane SIANG PASASON in Lao 21 Apr 81 pp 1, 4

[Text] Our mountains and forests are abundant, beautiful, and rich treasures of our country's natural resources. These resources, if we know how to protect and maintain them, can become the inexhaustible capital of our nation.

However, for many years our multi-ethnic people, particularly in mountainous areas, have practiced shifting agriculture and thus destroyed tens of thousands of hectares of forest every year. Moreover reactionaries in the old regime cut massive amounts of timber and sold it. Thus the area of our country covered by forests steadily decreased. After the liberation of our country, even though the party and government paid special attention to the control and preservation of forests, in some areas where it was necessary the burning or clearing of forests so our multi-ethnic people could practice agriculture still occurred, made the situation worse and had drastic environmental effects. For example it led to floods, droughts, and soil exhaustion and erosion in various localities which created major difficulties for our people to survive.

As a result the primary thing to decide in the effort to preserve our abundant national resources and to ward off droughts and floods successfully is that we must unanimously carryout the plans and policies of the party and state regarding preservation and control of forests. In particular we must use proper farming methods in accordance with scientific principles. For example we must reduce the area used in farming. If it is necessary [to cut forests for farm land] we must try to avoid areas with large, valuable trees and forest areas of strategic importance in protecting the natural environment, namely: reserve forests, mountain taps, headlands of streams and lakes, banks of streams, drainage ditches, and canals, and along roadsides.

Before new farm land is cultivated in any area a survey should be performed and a detailed plan drawn up fixing the forest boundaries two or three months in advance. One or two years would be even better. One thing to be avoided which our people have done previously is the leveling of a broad expanse of forest, either an entire mountain or dozens of hectares because if that is done there is nothing left to resist strong winds and rain which will lead to adverse effects on plantings and on the development of many kinds of wild trees. A better way is to preserve strips of forest to provide resistance to wind and rain.

Also, careful preparation before setting fire to a field means making sure that the fire will not spread to a forest by clearing a sufficiently broad area surrounding the field so that the fire cannot spread. Such fires should not be lighted on a windy day. Any former abandoned fields which cannot be used as fully or partially flooded paddy fields or as irrigated fields should be used to plant high value agricultural or industrial crops such as: maidu, maunhung, mai khamphi, mai khaew, mai tae, mai nbom, mai yaek, mai longleng and other types of plants which provide forest products. These plants must also be well cared for.

If these things are done we will be able to make our forestry resources greater, broader, and richer. Therefore, administrative authorities and leadership cadres at all levels, particularly cadres in mountainous regions or where plantation farming is common, should pay special attention to this effort and must divide up and delve deeply at this time because this is the time for clearing and burning fields. We must recognize that preserving and controlling our forests means preserving the party's policy and the future as well as our nation's capital. We must do everything we can to limit clearing of forests so that our nation will be one of green, fresh forests through the years which produce great revenue for the people now and in the future.

8947

CSO: 5000/4529

FIVE HUNDRED THOUSAND ACRES OF LAND STEADILY TURNING BARREN

Lahore THE PAKISTAN TIMES in English 2 Aug 81 p 6

[Text]

MIANWALI, Aug. 1: With 90 per cent of the 1,500 tubewells installed in this area idle, five lakh acres of very fertile agricultural land is steadily turning barren.

Marking this disturbing disclosure to the Press here, the Secretary of Mianwali Sharq's Tubewell Owners Association, Mr. Sadullah Khan Niazi, lashed out bitterly at WAPDA and said that if the working of WAPDA, the attitude of its functionaries and their general approach to the needs, problems and complaints of the people, particularly the growers, remained what they are the results would be most unfortunate and the damage caused colossal.

What is happening to the agricultural land here—among the most fertile in the country — Mr. Niazi continued, is fully in the knowledge of local WAPDA functionaries, big and small, as is the fact that the closure of the tubewells has deprived the people even of drinking water. But, he said, they are as unmoved as ever.

The much harassed, badly frustrated growers the Association Secretary continued, have been protesting in vain since 1977 to each and every authority against the exorbitant "high power" charges, persistently fictitious meter readings and fantastically inflated power billings, the baseless imposition of heavy fines and constantly and arbitrarily enhanced rates. Some WAPDA authorities promised relief in the 1981-82 budget and promptly forgot the promises, he added.

All this, Mr. Niazi said, left the growers with no choice but to disconnect their tubewells. But, most shockingly the highly inflated bills continue to be thrust upon them even after disconnection.

The growers now appeal to the Governor and the President, he said, to intervene in the interest of the national food effort, the very fertile agricultural lands of this area and the millions of rupees invested in the tubewells that WAPDA has brought to a standstill.

COASTAL RESOURCES MUST BE MANAGED MORE CAREFULLY

Beijing DILI ZHISHI [GEOGRAPHICAL KNOWLEDGE] in Chinese No 5, May 1981 pp 3-4

[Article by Li Shanwei [2621 0810 3634]: "Our Coastal Resources"]

[Text] China is a maritime nation with extensive coastal areas and territorial seas, a long and tortuous coastline, and abundant resources. From the mouth of the Yaluhe in the north to the mouth of the Beilunhe in the south, the coastline is 32,000 km long (including island coastlines) and located in temperate, subtropical, and tropical zones. The people living in coastal areas have made their living from the sea for generations, and their bitter toil has built China's long coastal areas and territorial seas into an important base for agricultural and industrial production.

The seacoast is situated in an area of interaction between water, land, organisms, and atmosphere and complex natural factors, making coastal changes very clear and giving them a special character. Complex natural conditions make for a variety of coastal types. In terms of major types, China's coastline has a structural coastline, volcanic coastline, eroded coastline, accreted coastline, organic coastline, delta coastline, and manmade coastline. Included among this are the imposing harbor coastline, which is a model for the world; the mudflat coastline, which seems to go on for as far as the eye can see; the sand coastline, which consists of linked sand dunes; and the coral coastline, which is scenic and charming.

Utilization of the Coastline

Enclosing the beaches and mudflats for cultivation: China's beaches and mudflats have an area of about 20 million mu, over half of which, according to preliminary estimates, are capable of being reclaimed through enclosure. China has a long history of enclosing coastal beaches and mudflats for cultivation and, along with the development of production, the scale of this sort of land reclamation has grown larger. Zhejiang Province alone has created 1.66 million mu of land through reclamation in this way since liberation. On land that it has reclaimed through enclosure, Xiaoshan County has carried out a comprehensive program of agriculture, forestry, animal husbandry, sideline production, and fisheries, implemented agricultural mechanization, and drawn benefits from reclaiming land from the sea. In China's coastal beach and mudflat areas, a great number of farms have

now been built for agriculture, salt, reeds, and fishing: for example, in the Huanghai seacoast and Panjin districts of Liaoning, in the Lutai district of Hebei, in the land reclamation area at the mouth of the Huanghe, in Shandong's Changwei Prefecture, and along the seacoasts of Fujian, Guangdong, and Guangxi. In some areas, because the water-conservancy facilities are very complete, saline soil has been improved, and much of it has been turned into desalinized paddy, creating an area of plenty in our aquatic regions.

Aquatic production, and fisheries resources: Many of China's coastal areas are famous fishing grounds which teem with famous sea slugs, prawns, and abalone and also have large quantities of cash fish and shellfish. As for plants, there are laver, agar, and kelp or algae which can be used as an industrial raw materials. Except for a few varieties which are found in certain specific coastal areas, the overwhelming majority are distributed rather broadly. Natural aquatic production resources are not unlimited, however, and with the development of fishing technology and the increase in the number of fishing boats, the catch has diminished; in particular, the reckless pursuit of norms has led to overfishing. The cash fish have disappeared, and to take their place the number of small miscellaneous fish caught has been increased to make up the quota.

On the other hand, the developmental situation in the production of plants in recent years in China has seen gradual increases in output, with varieties also becoming more diversified, especially in terms of China's production of kelp, laver, and mussels, which has climbed steadily from year to year. Thus, acceleration of the development of China's aquatic cultivation is not only completely necessary, but also possible. Apart from kelp, laver and mussels, other varieties are still rather limited in production. This is especially true for cash fish and prawns. Exceptions to this [limited] cultivation are Taiwan's zhuyuyu [6686 4158 7625] (the area in cultivation is over 230,000 mu and output nearly 30,000 tons) and the African crucian carp, which is cultivated in several provinces in the south; both of these varieties are grown on a rather large scale.

Salt resources and reeds: Salt, known simply as "the mother of the chemical industry," has a long history of several thousand years of production through solar drying in coastal beaches and mudflats in China. Particularly in the north, which is well endowed by nature, the quality of salt produced is very high and the output is large. The salt from the Tanggu salt fields and the Caizhouwan salt fields is known both in China and abroad for its large crystals. Today, China's salt fields, both large and small, are widely scattered in all coastal areas.

The growing of reeds in coastal areas has a very short history in China. In Liaoning's Yingkou district, an area of 500,000-600,000 mu has been opened up for growing reeds. The entire reed is valuable, for it is a high-quality raw material for the making of paper. Initial output of paddy rice planted in newly reclaimed coastal areas is not high, but planting reeds produces a high output and a quick harvest; furthermore, it helps desalinize the soil and improves the physical and chemical nature of the soil. So on China's northern beaches, planting paddy rice after harvesting reeds has been a good experience.

Estuarine harbors, and utilization of tidal energy: China has a great many estuarine harbors with many uses, the most important of which is their development as ports. Since antiquity, estuaries have been used by vessels. Long ago in the Tang Dynasty, Dengzhou (modern-day Penglai, in Shandong), Yangzhou, Quanzhou, and Guangzhou had already become famous ports. At that time, Penglai was the only port for crossing over to the east to Japan and Korea. By the Ming Dynasty, the first time Zheng Heqi sailed to the western oceans he set out from Liujiahe in Suzhou. The scale and tonnage [of the ships] at that time were considerable. Along with the development of sea communications, ship tonnage has increased, and now the largest oil tankers reach over 500,000 tons. Increases in tonnage should be matched by deepwater harbors. China does not have many deepwater harbors, and some harbors cannot meet the demand; this has an impact on the development of foreign trade. The expansion of existing ports and the development of new ports are urgent matters.

Elsewhere in the world, tidal energy is used mainly as motive power for generating tidal electric power. At present, France, the USSR, the United States, and other countries have already built their own tidal power stations, of which France's Langsi [2597 2448] tidal power station is the largest, with an annual output of 544 million kwh. There are abundant tidal energy resources on China's coast. According to statistics, the gross capacity is 2.75 billion kwh. In particular, the tides on the Zhejiang-Fujian coast are the strongest; a station built on the Qiantangjiang alone could generate 7 million watts. For a variety of reasons, China got started in tidal electric power rather late. It wasn't until 1958 that China began to build a small-scale tidal powerplant on the seacoast. The Baishakou tidal powerplant in Shandong formally began generating electricity in 1978 with an annual output of 2.3 million kwh. The construction of this station accumulated experience and created favorable conditions for construction of large-scale tidal power stations on China's seacoast.

Protection of the coast, and the importance of SPARTINA ANGLICA: In China's history there have been many achievements in protecting the coast, such as the Fanman embankment in northern Jiangsu and the seawalls of the south—particularly the seawall at the mouth of the Qiantangjiang—next only to the Great Wall and the Grand Canal in China's history. They are evidence of the transformation of nature through the struggle of China's laboring people with the sea. After liberation, this historically excellent tradition was continued as the people of Xiaoshan many times took land from the sea, creating fields by enclosing the sea, and in their struggle with the sea they created a complete set of effective methods. In building dikes, they both protected against waves and promoted silting, as well as increased the area of beaches and mudflats. Because the supply of silt was cut off after the Huanghe shifted its course southward in 1855, the coastline at the old mouth of the Huanghe in northern Jiangsu retreated through constant erosion, and villages along the coast were constantly moved inland. In the great tidal wave of 1939 in particular, over 10,000 persons were swept into the sea in a very tragic episode. After liberation, the party and government invested enormous sums for the building of dikes and seawalls, and now the coast is protected and the Sanhe brigade can live and work in peace.

Some sections of China's seacoast have sand dunes which are formed by the constant accumulation of sand. The movement of the sand dunes buries fields and villages

and greatly endangers the area. After sand dune seacoasts were afforested by planting large numbers of trees, sand damage was overcome. The Chongshan tree farm in Caicheng, Shandong, was started on sand dunes which were a danger due to blowing sand. After 20 years of careful cultivation, a large sand beach which used to be billowing with yellow sand has become a luxuriant "green long wall" beside the sea.

In 1963 Professor Zhong Chongxin [0112 1504 0207] of Nanjing University successfully introduced *SPARTINA ANGLICA* from England, which has had important significance in transforming the seacoast and has been called the "pioneer plant for opening up the beaches." Because of the superiority of *SPARTINA ANGLICA*, itself, after planting it can play a role in protecting the coast and promoting silting, particularly on infertile beaches not suited to cultivation. Systematic planting of *SPARTINA ANGLICA* will play an important role in recreating and protecting China's beaches and mudflat seacoast. *SPARTINA A.*, which was first test-planted in the Qidong area of Jiangsu and the area of Wenling Zhejiang, is now "at home" from Xingcheng, Liaoning in the north to Guangdong in the south and covers an area of over 300,000 mu.

Problems Which Have Emerged in Utilizing the Seacoast

Enclosing coastal beaches and mudflats for cultivation, and aquatic resources and cultivation: In enclosing beaches and flats for cultivation, many areas not only have enclosed barren beaches but also have shut out many beaches and flats which used to grow plants and were suited to cultivation. This has had serious consequences. On the beaches of Qidong and Rudong in Shandong, the clams and sijiaoge [0934 6037 5756] which used to be caught in great numbers every year are now nearly extinct due to changes in the biological environment. Or again, the lancelets, a special product of Amoy, dropped in output year by year after the Xinglinwan seawall and Jimeihe embankment were built, until they have now disappeared. The impact of land reclamation from the sea is greatest near the rivermouths. Due to environmental changes, fish and shellfish which used to come to such places to lay their eggs cannot lay eggs or have changed the place where they lay eggs. This is another reason why China's production of aquatic products has dropped sharply in recent years.

Land reclaimed from the sea, harbor communications, and utilization of tidal energy: This is most evident in China's historically famous Quanzhougang (a large and prosperous port during the Tang Dynasty). In Guangdong's Shuidonggang and Changvengang, because silt could not move due to erosion that cut off the flow, and with the reclamation of land from the sea by enclosing it, in addition to the silting in the mouth of the bay caused by the tides, the harbor became shallow and was finally abandoned. After Niuzhongyang was reclaimed from the sea by enclosure, the channel to the sea from Shantougang gradually became shallow. The depth of the water in Qingdaogang also gradually became shallow due to the expansion of coastal saltfields on Jiaozhouwan. After frequent reclamation in Hangzhouwan, the area has contracted greatly and the famous Qiantangjiang tides are much inferior to what they were earlier. If things go on this way, before long the tidal bore will no longer exist.

Pollution: With the vigorous construction of water-conservancy projects and the rise of coastal industry everywhere, the volume of pure water flowing into the sea from the rivers has been diminished and the sources of pollution have increased commensurately. Factories discharge large quantities of harmful substances into the rivermouths and banks, thinking that they have found an "ideal" solution to waste and that all is well, but this is really a mistake. In recent years, pollution from the "three wastes" has become a serious threat to organisms along the seacoast and to people's lives. Especially, the effect of petroleum pollution on the environment of fisheries resources has been that some coastal economic fish and shellfish have clearly diminished in numbers. The little yellow croaker, hairtail, and red porgy for which Bohai is famous are nearly extinct. This has lowered their value as food and even made them poisonous.

Sand resources: Sand is valuable. In addition to supplying various kinds of sand to be used as building material, China's seacoasts also have pure white quartzite, which is the best material for the glass industry, and the heavy minerals rutile and zircon. Beach sand is mainly rocks which have been crushed and then transported and washed by years of wave action and finally piled on the shore. The [sand] no longer moves much and has achieved a dynamic equilibrium, and it plays a role in protecting the seashore. Taking large quantities of sand from the seashore will destroy the hydrodynamic and material balance of the seashore, especially in some areas of the shore where the supply of resources is sparse and the seashore has eroded. Some beaches in Shandong are retreating through erosion because too much sand has been removed from them.

In terms of resources, apart from large land area and fisheries resources, the large cities and famous harbors concentrated on China's seacoast also have inexhaustible seawater chemicals, tidal energy, and tourist resources, as well as important raw materials essential to industry such as mineral petroleum, grit, and placer deposits. Our forefathers began to develop and utilize China's coastal resources, such as "fishing and saltpanning," and had knowledge of tides and navigation earlier than did other countries. Now, in order to realize the four modernizations, communications sections want to build wharves on the seacoast; agriculture wants to reclaim sealand by enclosing it; salt farms want to expand their saltfields; aquatics products departments demand protection of fish spawning, reproduction, and resting; however, tourists and the people at large ardently demand that parks be built and that they have an unpolluted and clean seacoast environment. Proceeding from a single point of view and not considering things from the point of view of scientific and comprehensive utilization will necessarily cause problems, and some contradictions have indeed already become more intense. On the one hand, there is no overall planning that takes all factors into consideration as far as the seacoast is concerned, while on the other hand there is no thorough understanding of the natural laws and creation of the seacoast. To destroy natural laws and to think only of immediate advantage will not only make it impossible for us to derive benefits, but may even create irreparable damage which will leave a legacy of trouble for later generations.

BRIEFS

SERIOUS WATER POLLUTION--Pollution of rivers and soil by the 1,200 electro-plating plants on the island seriously threatens human health and crops, the Anti-Water Pollution Center of the Taiwan Provincial Government warned in a report recently. The report said waste water containing acids and alkali exuded by electro-plating plants, around Sanchung, Tai-[letters indistinct] ung, Changhua, Homei and Tainan, is harmful to aquatic life and humans who eat these fish. Furthermore, the heavy metal ions contained in the waste water accumulate in the human body, causing swelling of the skin, stomachaches, uremia, rickets, and sometimes even death. The report stressed that inorganic heavy metal ions in waste water are consumed by humans in the fish and other aquatic life, and causing indirect but severe harm to the human body. It urged the electro-plating plants to improve their treatment of waste water before dumping it in rivers. [Text] [Taipei THE CHINA POST in English 28 Jul 81 p 12]

AIR POLLUTION HARMS CROPS--Air pollution has caused a constant and serious threat to the production of vegetables and rice in Taoyuan, Miaoli and Kaohsiung counties, according to a report issued by the Council for Agricultural Planning and Development Tuesday. The report pointed out that due to serious air pollution in the past several years, the production of farm products has decreased; rice and vegetables are the most seriously affected crops. In 1978, 323 hectares of crops were victimized and in 1979, 668 hectares. At present, there is no appropriate law to help farmers claim compensation from polluters. The most a farmer can hope to achieve is a compromise with the polluting party. CAPD officials who worked on the survey report urged the government to seek ways to control air pollution and protect farmers. Health bureaus all over the island should each form a public nuisance prevention center to stop further victimization of farm products and public health, the officials suggested. [Text] [Taipei THE CHINA POST in English 5 Aug 81 p 12]

CSO: 5000/4928

VIETNAM

WAYS TO SOLVE POLLUTION OF THAM LUONG RIVER DISCUSSED

Ho Chi Minh City TIN SANG in Vietnamese 10 Jun 81 p 1

[Article: "Meeting to Discuss Measures to Solve Environmental Pollution of Tham Luong River"]

[Text] TIN SANG, 9 June--Many concrete measures aimed at effectively solving the present pollution of the Tham Luong River within the shortest time have been proposed following a conference organized in late May 1981 by the standing committee of the municipal people's committee to address that problem.

The conference unanimously agreed that pollution of the Tham Luong River has reached the alert level and has caused very serious damage to agriculture, livestock and poultry raising, fish, vegetables, and human health (in neighboring areas and even inside factories), causing great damage to agricultural production a bad impact on the worker-peasant alliance, etc.

In terms of branch management, the responsibility rests with ministries, general departments and bureaus in charge of enterprises and factories which caused pollution; however, in terms of territorial management, the local administration has the task and power to control, uncover and prosecute violations committed by whatever echelons.

As an immediate measure to solve pollution during this year's rainy season, the municipal people's committee has charged the standing office of the Council on Environmental Protection with the task of inspecting and discussing ways to dispose of waste water with factories along the Tham Luong Canal, especially the Vien Dong papermill and the Thanh Son insecticide factory. Factories and enterprises should take the most positive and urgent measures (at around mid June 1981) to protect the environment, thus avoiding a bad impact on agricultural production and the people's health.

A subcommittee to address the Tham Luong River pollution problem will be set up with the participation of related organs, sections, branches, localities, factories, etc. It will urgently complete the most proper plan for handling pollution of the Tham Luong River.

Moreover, the municipal science and technology committee should promptly submit initiatives on handling environmental pollution from all strata of the population to the municipal people's committee for consideration and commendation.

9213

CSO: 5000/4533

15 MILES OF COASTLINE HIT BY RECORD-BREAKING OIL SLICK

Bridgetown THE NATION in English 24 Jul 81 p 1

[Article by Marva Cossy]

[Text]

BARBADOS has been experiencing its worst ever oil slick. And, according to Barbados Parks and Beaches Commission, chairman, Mrs. Iris Bannochie, it will take another week before the clean-up operation is completed.

Yesterday while touring the troubled area, the chairman said that 60 workers had been put into action from Monday morning in an attempt to get rid of the offensive matter. This, she added, had left the other beaches without cleaning staff.

In describing the situation, manager of the commission, Don Grant, who was also on tour, said that some of the chunks of tar were so large, weighing 15 to 20 pounds, that they required two persons to lift them.

Grant added there was evidence that the slick was destroying marine life. According to him, dead sea-eggs, crabs, lobsters, hedgehogs, barnacles, and other shell fish had been washed ashore.

The affected area stretches along some 15 miles of coastline from the East Coast Road, in St. Andrew, to Bath, in St. John.

After the tar is removed from the beach with rakes and spades, it is conveyed to a particular sand dune on the East Coast where it is buried.

Mrs. Bannochie said that residents of Cattlewash, in St. Joseph, had reported that they had seen a ship cruising along the Coast on Friday afternoon. She added that reports said that the ship was there up until early Saturday morning.

Mrs. Bannochie pointed out that the Defence Force, Chief of Staff, Colonel Rudyerd Lewis, had informed her that had the ship's movements been reported, the Defence Force could have sent its aeroplane to check the name of the ship.

She added that with this and other relevant information, the shipping line could be prosecuted under international law.

ARBITRATION BOARD CREATED FOR POLLUTION COMPENSATION

Port-of-Spain TRINIDAD GUARDIAN in English 23 Jul 81 p 1

[Text] Cabinet, on the recommendation of Energy and State Enterprises Minister, Mr. Errol Mahabir, has agreed to create a Pollution Arbitration and Compensation Board--a quasi-judicial body--to replace the Oil and Water Board, which ceased functioning since 1972. The decision has been taken in the face of steadily rising complaints by agricultural farmers in the South, who claim that their crops fall victim to oil pollution.

In conjunction with the creation of the new Compensation Board, the Ministry of Agriculture, as a matter of urgency, has been asked to prepare an updated schedule of prices for damage to crops.

The new board will refer to the updated schedule for guidance on the quantum of compensation.

Cabinet also noted that the Ministry of Energy was considering the establishment of a pollution compensation fund, whereby persons engaged in petroleum operations would be required to contribute annually, a certain sum of money, based on a specified formula.

This money would be used to liquidate liability for pollution after the determination of such liability by order of the board.

Mr. Mahabir recently met separately a delegation of farmers from the South, and representatives of four oil companies--Trintoc, Trinidad Tesoro, Texaco, and Premier Consolidated, and Dr. E. Jones, of the Ministry of Agriculture, Lands and Food Production.

After hearing the farmers' complaints, Mr. Mahabir explained that the competent authority to handle all such claims by farmers was the Oil and Water Board, which he himself noted had ceased functioning in 1972, by which time there were several claims outstanding.

Since then, Mr. Mahabir noted, the farmers had been left without any legal recourse regarding their complaints on oil pollution damage to their crops.

When the Oil and Water Board ceased functioning in 1972, for reasons still unknown, there were about 30 to 40 cases pending, some claims made since 1965.

As a result of the board's inactivity, the Ministry of Energy and State Enterprises, had been inundated with complaints from the farmers.

The Ministry continues, in the meantime, to investigate complaints made by farmers concerning oil pollution to crops, to determine the source of pollution and, if possible, to recommend corrective action.

While Mr. Mahabir pointed out that the Ministry of Energy was not the competent authority to settle such complaints, it also did not have the expertise to adjudicate oil pollution complaints or to assess damages to crops. [as published]

The oil companies, on the other hand, were not legally obligated to compensate farmers for crop pollution.

Early Creation

Cabinet was also made aware of the inadequate quantum of compensation paid to farmers for damage to their crops, based on the Government schedule of prices for damage to crops, last issued by the Ministry of Agriculture in 1975.

Mr. Mahabir said yesterday he had met representatives of the oil companies involved, with a view to having the companies respond more rapidly to farmers' valid claims, so as to at least partially alleviate some of the complaints.

Because of the present situation that has emerged, Cabinet agreed on the early creation of the Pollution Arbitration and Compensation Board.

CSO: 5000/7581

NGAMILAND SHOWS SIGNS OF RECOVERY FROM DROUGHT

Gaborone DAILY NEWS in English 7 Jul 81 p 1

[Article by Botswelale Tlale]

[Text]

CROPS and Animals exhibited during the Maun Show indicated that Ngamiland District has recovered from the serious effect of drought and also the eradication of Foot and Mouth disease in the district has brought life to normal.

About 44 stalls at the show had crops obtained from different part of the district and animals were also in good condition.

In interviews with BOPA, some exhibitors thanked the government for establishing Foot and Mouth disease Vaccine Laboratory in Gaborone.

More exhibits were expected but because some people in the remote areas were not sure whether or not the Maun District Show would be held this year they did not bring their exhibits.

This was confirmed by the Secretary of the Show Committee Mr W. Segabilwe.

The show was held at the sports ground and plans for a new show ground to be used next year are going on according to Mr Segabilwe.

He said that over P12 000 will be spent in the development of new ground at Thitoyamokodi one kilometre from Maun.

The show ground will have a permanent stand.

The secretary mentioned that there will be two toilets and a foot ball pitch at the new ground.

The new move taken by the Show Committee is that the exhibitors will have to pay more for the stalls. During the last shows they were paying P15,40 depending on the size of the stall.

Mr Segabilwe added that after presenting a report of this show at the general meeting a new Show Committee will be elected because it was discovered that the present one was inactive.

Earlier when welcoming the Minister of Agriculture Mr W. Meswale who opened the Maun show, the chairman of the show Committee T.S. Dintho appealed to government to improve the road between Maun and Nata.

He said that since they began trekking their cattle to the Botswana Meat Commission (BMC) many of them died on the road as a result of the condition of that road.

He cited one incident whereby a truck overturned on its way to Francistown killing some of the cattle which were being sent to BMC.

AL-QASH FLOODING CAUSES WIDESPREAD DESTRUCTION

Services Disrupted

Khartoum SUNA DAILY BULLETIN in English 16 Jul 81 pp 2-3

[Text] Kassala, July 16 (SUNA)--Most of service installations in al-Qash Delta had been destroyed by the effect of al-Qash River floods, Muhammad al-Amin Hamid, the Eastern Region Minister of Service announced yesterday.

The Minister said that the Regional Ministry of Services had formed health teams for the area of al-Qash Delta, and urged for urgent supplies of medicines from the Central Ministry of Health. All the demanded medicines have actually been dispatched, the Minister confirmed.

On the other hand, the Regional Minister of Finance and Economy, Ahmad Muhammad al-Amin, announced that there are plentiful amounts of supplies in the region. The Regional Ministry had endorsed Ls. 50,000 to meet the damages caused by the floods, and the Sudanese Red Crescent had also donated supplies.

Railway lines and bridges which were partially damaged by torrents will be repaired after recession of al-Qash River, 'Abdallah al-Hardalu, the Minister of Regional Affairs told SUNA yesterday.

Supply Shortages

Khartoum SUNA DAILY BULLETIN in English 21 Jul 81 p 7

[Text] Wagar, Kassala, July 21 (SUNA)--Al-Qash recent floods have affected 22 Sagias and 16 houses here and water has completely surrounded the town. Though supply materials are running short, no epidemic cases were reported.

Citizens of nearby villages whose houses were washed out moved to the town and they were accommodated at schools.

Villagers Displaced

Khartoum SUNA DAILY BULLETIN in English 22 Jul 81 p 3

[Text] Kassala, July 22 (SUNA)--Al-Qash floods are still trapping Oleib village and isolating it completely from the external surroundings.

Some 5,000 of the villages' 7,000 inhabitants had made their diminutive but sad exodus while damages are not yet estimated.

The People's Armed Forces are carrying supply materials by planes to the stricken villages.

The water level in al-Qash river registered 135 cm. 10 am. yesterday recording an increase of 10 cm. within four hours only.

CSO: 5000/4723

ILLEGAL IRRIGATION ALONG SABI RIVER COULD 'LEAD TO DISASTER'

Salisbury THE HERALD in English 15 Aug 81 p 4

[Text]

UMTALL

SILTATION of the Sabi, Zimbabwe's greatest "inland" river, was a major problem that threatened the viability of the Sabi river valley development schemes, said the chairman of the eastern group of the ICAs, Mr Jim Valentine.

The massive siltation taking place in the river resulted from improper conservation throughout the catchment area, particularly in the communal lands. Streambank cultivation in all areas — including those occupied by squatters — was adding to the problem.

"Illegal irrigation is rife and is adversely affecting established legal schemes. I must warn that the breakdown of

any existing conservation practices will lead to disaster as far as our area is concerned. Water is being taken upstream from legal schemes and the result may be that the livelihood of many people will be robbed," he warned.

He cited Nyanyadzi, Chakoka and Nyamaropa irrigation schemes as those worst affected by illegal irrigation upstream.

"Streambank cultivation is taking place, and it is of vital importance to stop this, or else the whole problem will increase tremendously," said Mr Valentine, adding that siltation of the Sabi, caused by wash-away of sand all over the catchment area, had caused flooding in some parts of the middle Sabi.

The chairman of the Natural Resources Board, Mr Lance Smith, told the meeting the board was extremely concerned at what was taking place in Manicaland and elsewhere. Siltation was a widespread problem, and the

board had recently warned the Government that the two proposed dams in the Ndanga and Bfikita areas would silt up in 11 years unless proper conservation practices were enforced.

"The NRB is concerned and worried. There is a need for a proper survey, with satellite photography, to see what is happening and what can be done. As far as the commercial land is concerned we are heading for disaster if we settle these areas without proper land use," he said.

The acting provincial conservation officer, Mr Mike Leonard, warned that a complete ecological breakdown could take place generally unless something was done to halt siltation, illegal water extraction and streambank cultivation.

"In the last season, large areas were flooded out by the Sabi. This appears to be happening every year. The area could become a delta within 10 to 15 years," he said.

PLAN TO BOOST WATER SUPPLIES REPORTED

Salisbury THE HERALD in English 14 Aug 81 p 3

[Text]

BULAWAYO.

THE World Lutheran Federation is pouring thousands of dollars into water projects in the Gwanda and Beilingswe districts.

The construction of new wells, small dams, and even a dollar-for-dollar scheme to encourage vegetable growing are all part of the federation's plans for the rural areas of Zimbabwe.

Working closely with the Government, and seeking initiative and determination from rural dwellers themselves, the federation already has 30 new wells under construction and plans to revitalise old boreholes, wells and pumps.

Dutch engineer Mr Piet te Velde, who has spent six years working on similar projects in Nigeria, has been contracted by the LWF to mastermind the whole operation.

The scheme was put forward when the Lutheran Women's Clubs requested help from the federation.

"After carrying out a survey, we decided to restrict our project to the Gwanda and Beilingswe districts, where the church was fairly well established

and where we estimated some 2 000 communities were in need of better water supplies," Mr te Velde said.

"The federation decided to go ahead with these water projects in November last year and our budget for the first year is \$150 000. We reckon on about \$1 000 per new well, depending on the locality and labour.

"One important aspect of the project is that the rural people have had to get up and help themselves. After surveying the areas, the people had to form their own water committee, then come to us with suggestions for what they needed and a site for a well. We also asked them to provide such materials as stone and sand, and to offer accommodation for the well sinkers," Mr te Velde said.

The LWF is also encouraging people in the rural areas to become vegetable growers.

"We are offering a dollar-for-dollar scheme whereby if the local people in any area get together and set up their own vegetable growing business, we will back every dollar they raise with a dollar of our own."

CANADIAN ESKIMOS SEEK GREENLANDERS' AID TO STOP TANKERS

Godthab GRONLANDSPOSTEN in Danish 29 Jul 81 p 14

[Text] Canadian Eskimos want Greenlanders to participate in a hearing that will form the basis for a final decision on the ultimate fate of APP [Arctic Petroleum Project].

A final decision on the fate of APP is fast approaching.

The Canadian energy agency, the National Energy Board, plans a big hearing this fall on the pompous project to extract natural gas in the far northern Arctic and transport it to the south in icebreaking supertankers past the west coast of Greenland. The hearing will form the basis for the Canadian government's decision to give the green light for the project or not.

"The hearing is expected to take place in Canada in October but it could be postponed until next summer," said the president of the Inuit [Eskimo] group ICC [Inuit Circumpolar Conference], Hans Pavia Rosing who last week hosted the second meeting of the ICC task force working on the APP project.

Want Greenlanders at Hearing

Canadian Eskimo representatives on the task force have expressed their strong desire for Greenland participation at the upcoming hearing to present arguments in support of Greenland opposition to the project. This would strengthen the united Inuit opposition.

The task force discussed various possibilities for Greenland participation at the hearing. And Hans Pavia Rosing told AG [GRONLANDSPOSTEN] that the task force came to the conclusion that it would be best if the Greenland administration was represented at the hearing. The alternative would be representatives from popular organizations such as the organization of fishermen and trappers, KNAPK [expansion unknown].

The task force on APP has authorized ICC president Rosing and EC Parliament member Finn Lynge, a member of the task force, to initiate talks with the Greenland administration on this matter.

Strong Doubt

Representatives of the Canadian Eskimoes in the ICC task force have expressed strong doubt as to whether various information on motives behind Greenland opposition to APP ever gets into the hands of the Canadian Energy Board. Therefore there is a grave risk that the Greenland views will not be presented at the hearing unless the Greenlanders themselves participate.

The task force has discussed various possibilities for more effective opposition to APP. This could be done through information campaigns in other countries where they don't know much about the natural gas project--for example by turning to the many environmental organizations in Europe. "A number of possibilities for opposition activity were discussed but I think it is too early to tell you more about them at the present moment," said Hans Pavia Rosing.

Alaskan Eskimoes Invited

To involve all three Inuit countries in the work concerning the APP project the task force decided to ask Alaskan Eskimoes to participate on the task force. They had already expressed interest in doing so.

The Aussivik meeting's desire for membership on the task force was discussed. Interest was expressed in this and the Aussivik committee will be invited to hold more detailed talks. The Aussivik 81 request that the task force send a representative to the board of the newly-established Aussivik Fund Against APP was complied with. And it will be Pavia Nielsen who will represent the task force on the board of the fund.

6578

CSO: 5000/2163

SEA POLLUTION THREATENS PAPHOS BEACHES

Nicosia TA NEA in Greek 17 Jul 81 p 8

[Article by Elena Karaiskou: "Health of Kato Paphos Residents Threatened"]

[Text] Even though it is the only "oasis" of greenery amidst the newly constructed building complexes, thus causing a "break" in the row of assembled concrete, the Leivadi Ton Kalamionon in Kato Paphos is, nevertheless, the sinister number one enemy of public health. It "hosts" all the dirty waters flowing out of drainage pools of the complexes constructed since 1977. It covers a circular area with "Myrra" as center and extends beyond the Vine Products Cooperative Marketing Union.

Since Kato Paphos lacks a central sewage system and the building complexes have only drainage pools instead of biological cleaning systems, all dirty and infectious waters settle in the Leivadi Ton Kalamionon.

Through ditches dug long ago--to avoid water stagnation and protests by the people--these dirty waters flow to a sea exactly opposite the public baths. Since Paphos lacks a public square, the people--perhaps even from habit--find relief during the hot summer afternoons in these waters which are filthy with wastes and all sorts of refuse coming from the asphyxiated pools of apartment houses and some hotels.

Perhaps never before has the health of the Paphos people been threatened so criminally and unscrupulously. According to medical opinion the Leivadi Ton Kalamionon is the greatest nest of microbes in the heart of fast developing Kato Paphos with unforeseen consequences as concerns the spread of diseases like cholera and typhus.

This impermissible situation which endangers the people's health and defames our city to all visitors was first brought to the attention of the Paphos authorities by the physicians themselves.

Paphos Mayor

Paphos Mayor Giannis Agrotis whom TA NEA contacted regarding this source of pollution gave the following justification, after first requesting that we play down the issue so that the city might escape defamation:

"Historically, the problem began when the construction business failed to initiate a biological drainage system for all wastes from construction, even though the

permits issued to them do mention such measures. But no one implements them and it is natural that the dirty waters should concentrate there [Leivadi]. The measures we have taken aim at the disinfecting of the "Leivadi" waters and soon we will cover them with gravel.

Long-term Plan

"There is a long-term plan for [the construction of] a sewer system in Kato Paphos at a cost of 200,000 pounds," he added. To our question of why the construction companies are not forced to install biological drainage system for reasons of public benefit, the mayor failed to respond. Yet there exists a regulation which provides that when public safety dictates, a measure should be considered necessary and subject to immediate implementation.

According to a reliable civil engineer, from 1977 until now about 50 to 55 permits were granted for the construction of big complexes and hotels in the beach area from "Myrra" to and including the Theano Hotel. None of these crowded buildings has a biological waste cleaning system. All have drainage pools with unforeseen results for the future.

On the other hand, in order to fully understand the seriousness of the problem which threatens to choke the whole Kato Paphos if no radical measures are taken soon, I discussed the whole issue with a civil engineer of a large technical company which constructs systems of biological cleaning of wastes.

Sewage Problem

"First of all," said the engineer, "if the mayor indeed wanted Paphos to have a central sewage system then this should have already been done this way: For each construction permit issued, instead of forcing the interested persons to build an independent biological cleaning system, he should have instead recommended that the amount spent by them for independent systems should be earmarked for the construction of a central sewage system thus providing for Kato Paphos an infrastructure project. At this very moment," added the engineer, "only one construction company is building a biological cleaning system and soon, for lack of a central system, fast developing Paphos will be facing serious danger." He, moreover, pointed out that it is imperative for Paphos to get a central sewage system and that further delay will be at the expense of both the public health and the people's benefit.

Absolute Silence

The delay in the construction of the Paphos central sewage system may seriously affect the city's further development. The appropriate authorities maintain an absolute silence [on the subject]. The mayor is not in a hurry and only blames any individual who puts up a house or building but fails to install a private waste cleaning system. He does not, however, take any measures and leaves it up to the good will of the builder. But the problem is very serious with immense adverse consequences for Paphos. The dirty waters from all buildings in the area flow to Leivadi Ton Kalasdonon where they remain stagnant thus creating an open cesspool. These waters are subsequently channeled through a ditch and an underground tunnel to the beach where thousands of bathers swim every day thus infesting themselves and their children.

Official Version

The official side gives assurances that the matter is being studied on a long-term basis. Yet tens of buildings are being constructed without advance planning. The development of Paphos thus continues...with buildings going up at a fast rate, with pools being filled to capacity daily, while tank trucks are trying to empty them and while the stagnant yellow-green waters at Leivadi Ton Kalamionon are covered with thousands of giant mosquitoes which attack and bite the customers of the night centers in Kato Paphos.

It is of primary importance that the foundations be laid for the construction of a central sewage system in Paphos as a prerequisite for its pragmatic development. There is no room for delays or justifications when the people's health is endangered.

7520

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PHARMACEUTICAL FIRM OFFICIAL ARGUES AGAINST NEW LAW

Copenhagen BERLINGSKE TIDENDE in Danish 8 Aug 81 pt II p 2

[Article by civil engineer Kim A. Hueg, diploma in commercial science, director of Novo Industry, Inc.]

[Text] The environmental affairs minister's proposed revision of environmental laws involves changes that would harm industrial job creation, exports and earnings and very little time has been given in which to present objections.

The environmental affairs minister has issued a proposed revision of the Environmental Protection Act (referred to hereafter simply as the "environmental law"). The proposal maintains the original principle of the law: when evaluating a firm's pollution the effects of the pollution must be weighed against the social benefit of the firm as well as the costs of reducing the pollution.

But the revision draft contains some important changes the adoption of which would be detrimental to the job-creating capacity of businesses as well as to exports and earnings.

The environmental affairs minister wants to remove the authority from counties and municipalities to approve applications from big firms (Chapter 5 firms) for expansion and new construction and centralize the handling of such cases in the hands of the Environmental Agency. The minister already has the ability under the present law to "call in" big cases so the intent must be to greatly increase centralization.

However as the counties have pointed out there is a great desire to preserve and expand cooperation at the local level and in the 8 years since the environmental law appeared county governments have substantially increased their staff of experts. Today the handling of these cases is rapid, competent and generally satisfactory to business. Thus the minister is wrong when he says that business interests themselves want case handling centralized in the hands of the Environmental Agency. And isn't it also in the best interests of the public to have cases dealt with locally where citizens can gain direct insight into what is happening from municipal and county politicians as well as local papers, citizens' meetings, etc?

Not only is it being proposed that local bodies be cut off from the process, in some cases the right of appeal to the Environmental Appeals Board would be restricted. This would make the Environmental Agency the highest administrative and regulatory authority as well as the appeals board, normally an undesired combination.

The argument for centralizing cases at the Environmental Agency and reducing access to appeal is that this will promote rapid handling of cases. It is doubtful that this will be the result. A few years ago Novo Industry had a case that extended over 2 years and the handling of this case led to no changes in the original project with the exception of increasing the cost by 12 million kroner due to the delay. The 2-year delay was caused by the handling of the case by the Environmental Agency and the Planning Agency. The local authorities and the Appeals Board handled the case quickly. As you know the PVC case in Skaelskor lasted more than 3 1/2 years and the Topsoe case in Frederikssund lasted 4 years both because of the Environmental Agency's handling of the cases. Against this background it seems unfortunate that the fast-acting bodies will now be cut out of the process while the slowmoving central agency is being upgraded. Former Environmental Affairs Minister Ivar Norgaard suggested in 1978 that a 4-month limit be set on handling cases by the agency. Why has this constructive idea been left out of the proposed bill?

When the environmental law was presented in 1973 the biggest objection made in Folketing was that it lacked firm guidelines and gave great authority to the minister. The reply was that we had very little experience in this area and therefore had to start out with a framework law. The 7-8 years since then must have provided the administration with the experience material it needed. The Environmental Agency should now be able to give firm guidelines so that each individual case does not have to be applied for, dealt with, appealed and counter-appealed all the way through the system.

Clear guidelines could relieve one of the main problems with the environmental law: a big firm can afford to respond to the objections of the administration at this time. Including a permanent environmental staff of 8 people, Novo spent 2-3 million kroner this year on the administration of environmental tasks in addition to spending tens of millions on avoiding pollution. Medium-size and small firms do not always have the capacity and personnel for this work and are placed in an uncomfortable squeeze. Clear rules would lead to fewer cases and restrict ministerial power which today is used by the dedicated case handlers at the Environmental Agency to impose great burdens on businesses.

A central point in the proposed law is an expansion of the Environmental Appeals Board. The board now consists of a judicial chairman and experts appointed from case to case from two lists of specialists. The lists are drawn up by the public sector (the Environmental Agency) and business organizations respectively. Experts are chosen in the areas of environmental technology, ecology, business economics and production technology. The main idea is to achieve as much expertise as possible and avoid political influence. There is broad satisfaction with the work of the Environmental Appeals Board and respect for its decisions is great.

Under the proposal the appeals board would be expanded. Among other things it would include representatives elected by the Consumers' Council, the Danish Nature Conservation Society and the Danish League of Sport Fishermen. Why are these the only associations approved? Using a little sense of humor, one might ask what the minister has against the Danish Association of Beekeepers, the Danish Botanical Society, the Ornithological Association, the Animal Protection League, the League of Allotment Gardeners and the Scouts, not forgetting the nudists.

Is quicker case handling the goal? Is it expert and responsible study that will promote a good environment and prosperity that is being sought? With all respect to the associations mentioned one must say that the very complex technical, economic and judicial considerations that take place at the Environmental Appeals Board require expertise and experience rather than attitudes and political viewpoints. Can the minister name a single appeals case that would have turned out differently if the Consumers' Council, for example, had participated in handling it?

If one wants changes even though the appeals board is functioning well, one could allow the organizations mentioned to make up one of the lists along with the Environmental Agency. Business firms could then write out the other list. This--in contrast with the minister's proposal--would reduce our fear that the Environmental Appeals Board could turn into a forum for the manifestation of special positions at the expense of its current professionalism.

If a municipality or firm wants to expand a plant the environmental law makes it possible for people directly affected to appeal. The minister now wants to give such access to appeal to nationwide associations that safeguard general interests in the environmental area (such as NOAH and OOA [expansions unknown], for example?).

The consequence of a complaint is that an expansion of a firm or a municipal facility is delayed. There are many scary examples of this. As early as 4 years after the enactment of the environmental law it was seen that the situation was impossible. An adaptation in 1978 makes it possible to dispense with the delaying effect of a complaint so building can continue on one's own responsibility and at one's own risk while the complaint is being evaluated. But utilization of the facility naturally has to wait while the complaint is being handled. This reduced the harmful effects of the worst abuses of the appeals process.

There must be access to appeal, no one doubts that. Many business and municipal decisions are complex and comprehensive in their effects. One can overlook details and things of importance to the immediate environment and every piece of good advice and each justified objection should be included in the evaluation. When the environmental law was enacted, however, it was made quite clear that complaints could be submitted only by local people and associations directly affected by the planned expansion. It was therefore an evasion of the law and a gross example of how a nationwide organization can sabotage the machinery that the 2-year 12-million kroner case involving Novo, referred to above, was initiated by

a political party. The party came in the minority when the town of Gladsaxe gave permission in 1976 for the construction of a power silo 30 meters high in the industrial area where Novo operates in Bagsvaerd. It was unreasonable that the party could then pursue the matter further under the appeals opportunities provided by the Environmental and Municipal Planning Acts.

No one can deny that the popular environmental protection groups have had a good influence. Several of these grass-roots organizations have made a positive contribution to our good environment by drawing attention to pollution problems. Take an example of current interest to Novo. The residents around Jammerland Bay near Kalundborg where Novo has a factory raised questions about the waste water disposal methods of the municipality and several large firms. Of course the Jammerland Bay Pollution Committee (JAFU), an association of directly affected residents, should have the right to ask West Sjaelland County to look into the bay's "tolerance" in order to find out how much waste water can be discharged into it. No one is interested in overloading this recreationally valuable piece of water. (For the sake of clarity it should be mentioned that interest in Novo's waste water is not based on the presence of dangerous substances such as mercury but on the fact that the waste water contains nutrients from fermentation processes which require dilution.)

However it is a very long leap from giving the right to complain to locally affected people and associations to giving the same right to nationwide groups without direct local ties, without (grass) roots in the concrete problem. One could then get into the odd situation that all those locally involved agree on a new community or private initiative but have to wait several years while the case is dealt with by the Environmental Agency because of complaints initiated somewhere else in the country by politicizing organizations with a great need for public relations coverage.

In addition to maintaining access to appeal for those directly affected the rules on how to handle complaints should be tightened up, as well as which complaints should be dealt with. Minor or previously handled complaints along with frankly meaningless objections should not be accepted. The environmental affairs minister should consult Interior Minister Henning Rasmussen who when he was mayor experienced delays in alterations to Esbjerg Airport due to an irrelevant complaint, delays that cost the taxpayers 700,000 kroner. Henning Rasmussen's remarks at the time indicated that he would favor tightening up the concept of complaint.

The idea of counteracting the rising number of complaints by imposing a fee has not won support. In well-organized Switzerland several cantons provide for the publication of building permits and if more than say 100 of the local residents object the project must be looked into more carefully. This might be a more democratic way than a fee to weed out the flimsiest complaints.

If the legislators want to promote the business community's ability to create jobs and its export and earnings possibilities they should consider these things:

Dropping the proposal to centralize Chapter 5 cases in the hands of the Environmental Agency. The necessary expertise already exists on the county level and there is broad interest in close cooperation at the local level.

Introducing a time limit of 3 or 4 months for handling cases in the environmental and planning agencies.

Preserving the Appeals Board as an expert body instead of making politicization possible.

Keeping the "weeds out of the grass-roots." Local influence should not be ruined by unauthorized national associations.

The proposed revision of the environmental law was sent out on 1 July and written comments are supposed to be in the hands of the Environmental Agency by 12 August at the latest. It is unacceptable to provide such a short grace period--and in the middle of the vacation season at that--in which to deal with this vital issue.

6578

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UNAUTHORIZED HYDROELECTRIC DAMS THREATEN TROUT, SALMON

Paris LE MONDE in French 22 Jul 81 p 9

[Article by Marc Ambroise-Rendu: "The EDF Is Doing Its Work In Double Quick Time and the Protectors of the Environment are Protesting"]

[Text] The fishers are getting angry. For more than 20 years they have been defending French streams against pollution of all sorts, damage caused by gravel, dams without fish ladders and with untimely discharges of water. The strengthening of the protective legislation and the reconquest of the rivers are due to their vigilance.

This time it is the EDF [French Electric Company] that they are attacking. The National Association for the Protection of Salmonidae has just sent a letter to Michel Crepeau, the minister of the environment, to ask him for a "serious" investigation of the hydroelectrical plant construction sites opened in different regions of France by the national enterprise. The fishers wish to be associated with this investigation and with the publication of its results.

The defenders of the trout and salmon are not taking alarm without cause. They cite as an example the case of the Puylaurent Dam in Lozere. The EDF engineers want to dam the upper Chassezac Valley with works 68 meters high and 250 meters long which would flood 67 hectares of land and retain 12 million cubic meters of water. It is a question of cutting down possible floods and of regularising the supply to four falls located downstream. The dam would make it possible to produce an additional 15 million kilowatthours, or the equivalent of 3,300 tons of oil, taking one year with another.

Does this contribution of energy justify the damage which the work threatens to cause? Two streams will be submerged for several kilometers. The drop of the waters in summer will leave the banks exposed to a height of 40 meters. Downstream from the dam, the Chassezac will be reduced to a thin trickle of water in which it is doubtful that trout could survive. In short, according to the environmental department, the effects on the site and on the natural environment would be incommensurate with the energy furnished indirectly by the works. Consequently several months ago they issued an opinion strongly opposed to the request for a concession filed by the EDF.

Now these works are going at a good pace in the Chassezac Valley. A road, earthworks, land clearing, and blasting are ripping the ground apart. The EDF talks of

"reconnaissance soundings." But if authorization is ultimately refused, who will repair the damage? The Association for Protection of Salmonidae is going still farther: it is accusing the EDF of wanting to confront the minister of the environment with a *fait accompli*.

This is not an idle accusation, either. Fearing that certain of its projects would be modified or questioned by the government, the national company is accelerating the rhythm of its work everywhere. This is true at all nuclear sites—with the exception of the Plogoff site, which has been definitively eliminated—the advisability of which would be reexamined. This is also the case at the numerous hydroelectric construction works, whether new dams or raising old works are concerned.

With legitimate concern to reduce construction costs, the EDF wants to conduct its work with maximum speed. For a long time its officials have acquired the habit of conducting legal procedures and preliminary works concurrently. But this haste results in curious situations.

Thus the Eyglies Dam construction works (Hautes-Alpes) on the Guil, a tributary of the Durance, were begun before the public investigation and completed last summer even though the declaration of public utility had not been issued. Another work situated in Brassac on the Tarn, has been completed, even though the administrative investigation is in progress. It is true that the engineers are irritated by the administration's slowness of action. The procedure for investigating a request for a hydroelectric construction concession takes 3 years. But does that justify, for example, the Ferrieres Dam on the Ariege having started to go up in 1980 when the decree of concession had not yet been signed?

For it seems that the EDF is deliberately disregarding the objectives of the environmental department. A construction site has been in full operation in Saint-Amandin, in Cantal, since last summer, even though the concession is far from being granted and the minister of the environment has written a clearly unfavorable opinion. A *fait accompli*? A good example of it is that of the Age hydroelectric plant on the Creuse, which has just been put into operation even though the investigation is not over.

The works called "preliminary" often have broad backs. Thus, in Haute-Romanche (Isere), they are in the process of drilling a 4,000 foot long gallery in its ultimate dimensions. They are dubbing it a reconnaissance gallery and dispensing with all authorization.

Very Useful Dams

Where raising a dam or completing old engineering is concerned, the EDF acts with still more freedom. ~~With the endorsement of the ministry of industry, the national company is dispensing with any public investigation, although the works most often involve a change in the flow of rivers. One could also cite a half dozen operations conducted in this way in contempt of legal procedures, especially in Tarn, in Savoie, in Dordogne and in Ariege.~~

These practices have been arousing the anger of the fishers' associations, since they are conducive to failure to take any precautions with respect to the natural

environment. They are also disturbing to the environmental officials who are wondering what their purpose is. They are especially threatening to democratic control of improvement operations.

No one contests that certain dams are very useful. That is no reason for dispensing with any public investigation. The energy crisis has already served too often to justify many blows to the principles of dialogue and participation. That such blows are continuing to happen and that they are the act of a nationalized enterprise only makes them more open to criticism.

9380

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NITRATES, MERCURY, RADIOACTIVE ELEMENTS UNCHECKED IN WATER SUPPLY

Paris LE MATIN in French 2 Jul 81 p 17

[Article: "Drinking Water: The Quality Is Often Doubtful"]

[Text] Such is the accusation made by researchers at the conclusion of an investigation carried out in 11 districts which raises serious questions about the operation of the monitoring system required by law.

An oft-failing monitoring system, imprecise and often overwhelming regulations, and infrequent controls: such are the accusations made by a team of researchers from the Museum of Natural History at the conclusion of an investigation carried out in 11 districts. In a report to be published in the near future, they reveal that as a result of these deficiencies, "A quarter of all rural communities studied in the investigation have water with questionable bacterial content." In some cases, the amount of pollution reaches a dangerous level.

Is water from the tap really up to its reputation of quality and purity? It is to this question that the investigation carried out in 11 districts (1) by the Natural and Modified Systems Evolution Laboratory team led by Prof Claude Lefeuvre answers negatively. In spite of the July 1978 law concerning free access to official documents, investigators often had to resort to devious means of obtaining information. In 7 out of the 11 districts, investigators have been unable to obtain access to the results of analyses and controls carried out by the administration.

This may explain something else: District Management of Health and Social Affairs (DDASS) rarely has sufficient means to carry out its monitoring mission. Thus, several districts are still awaiting the appointment of a Health Engineer. Then, there is the problem of finding competent laboratories to carry out analyses at the local level. In three of the districts, laboratories perform analyses which do not conform to the law. A fourth district even makes use of the services of a non-approved laboratory. All this results in "a great variation in the efficiency of the monitoring system."

(1) Allier, Aube, Bas-Rhin, Cotes-du-Nord, Dordogne, Drome, Eure, Jura, Loiret, Maine and Vendee. The study was also supposed to cover the Nord district, but investigators found it impossible to gain access to the required documents.

The reports adds that this situation also results from "inadequacies" and "inaccuracies" in the many regulations which are part of the public health code. For instance, detection of heavy metals such as mercury, or pesticides and detergents, is not yet required by law. Detection of radioactive elements is only random. Finally, there is no required standard for nitrates which are one of the main sources of pollution of drinking water today, and which are known to cause serious illness, particularly in babies. The study shows that the maximum 45 milligram/liter threshold established by the World Health Organization is often exceeded in rural areas, in all districts surveyed. In other words: existing legislation is in need of being overhauled.

How is water quality monitored? The administration may use three different types of analysis, but the report shows that they are seldom used. Type 1 analysis, which is the more frequently used, is only required at the opening of a new water source. As a consequence, only one district out of 11 has used this type of analysis other than at the time of opening of a new source. In this case, it resulted in the detection of mercury at a concentration three times higher than that tolerated by the WHO. The experiment was not repeated!

The other two types of analysis required by regulations are: T2, concerning detection of nitrates and T3 (known as reduced monitoring and limited to the detection of bacteria). They are used infrequently. Only two of the districts perform T3 analysis on their water distribution network once a month, six others do it twice a year and another does it once a year. It is true that in most cases, the DDASS do not even have water distribution network maps and that source locations are frequently unknown and inaccessible (in one district, 60 percent of the source locations are unknown!), which makes impossible the implementation of protective areas which have been required by law in the last 13 years.

Still concerning the subject of inadequacies, the report shows that district services generally know nothing about the sanitary condition of the distribution networks, the reservoirs and their cleaning schedule. It also shows that in one of the three districts which were studied in detail, the DDASS can only monitor communities which are not supplied by private companies. In cases of bacteriological alert, mayors often refuse to allow disinfection of the water because "people complain that water tastes like chlorox."

The report concludes that "none of the districts studied corresponds to the ideal monitoring situation that citizens can rightfully expect." The result is that in 6 districts out of 11, 30 to 40 percent of rural communities are supplied with contaminated water, and that in 2 districts, bacterial pollution is such that water is actually dangerous.

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CONFERENCE IN SVALBARD DISCUSSES AREA'S ECOLOGY

Oil Drilling Pollution Feared

Oslo AFTENPOSTEN in Norwegian 8 Aug 81 p 30

[Article by Aashild Sorheim Erlandsen: "Eco-System in Arctic Different and Vulnerable"]

[Text] "The ecological interplay, of which we now begin to see the contours, must not at the start make us assume that Svalbard and the Arctic function in the same way as mainland Norway. Therefore we must increase our knowledge of conditions in Arctic areas. This is necessary to enable us to meet the development, easily predictable, that will come in a few decades," said Research Leader Erling Sendstad of SINTEF [expansion unknown] in his lecture on the Svalbard ecological system at the conference on technology in the Arctic. The first part of the conference has dealt chiefly with the limiting conditions applicable to activities in Svalbard, i.e. the political, administrative, and natural conditions. Thursday was devoted to geology, and on Friday researcher Olav Liestol dealt with the climate, ice conditions and permafrost, the permanently frozen ground that we still know little about. The sea ice was dealt with in a separate lecture.

In his lecture on the ecology system Erling Sendstad touched upon oil pollution and the conditions special to the Arctic in this connection; among other things that there is biological activity at various times during the year.

"It is said that drilling should not be done in winter. But I believe that the consequences of a spill are perhaps less in summer than in winter," said Sendstad. "Other conditions to which special attention must be given are low temperatures, the thick animal fat layers, that animals give birth to few young, which in turn live longer so that they are affected over a longer period of time," said Sendstad.

Research, Planning Coordination Studied

Oslo AFTENPOSTEN in Norwegian 10 Aug 81 p 40

[Article: "Research and Planning Must be Coordinated"]

[Text] The Storting report on environment protection, mapping, and research in the polar areas will be completed by the environment ministry during next winter," said Officer Chief Erik Lykke on Sunday at the conference on arctic technology.

The future role in Svalbard of the Norwegian Polar Institute will be dealt with in the report, among other things. "The liaison between the Polar Institute and the universities and colleges must be considerably strengthened to enable coordination of research and planning to function better than it does today," Lykke stressed during the debate after the lecture. "There is reason to anticipate that the Barents Sea and Svalbard in coming years will be areas of intensified fishing and increasing exploration for oil," said Lykke in his lecture.

He therefore stressed the importance of gaining better knowledge. "We still have the opportunity to manage things so that we shall not be pressed for time when decisions must be made."

As concerns the future role of the Norwegian Polar Institute, Lykke said: "Some of the Institute's tasks are today perhaps of less importance than they once were, others are not adequately covered. Developments have among other things brought with them growing direct engagement in the Svalbard area by larger specialized institutions. It is necessary to have clarified what consequences this will have for the position of the Norwegian Polar Institute. In particular, it is necessary to take a look at whether the Institute's activities should to a higher degree be concentrated on tasks which cannot be handled equally well by other Norwegian institutions.

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